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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,468	12/20/2005	Robert Alexander Van Eibergen Santhagens	NL030751	8162
24737	7590	01/19/2011	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS			SWINNEY, JENNIFER B	
P.O. BOX 3001			ART UNIT	PAPER NUMBER
BRIARCLIFF MANOR, NY 10510			3724	
MAIL DATE		DELIVERY MODE		
01/19/2011		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/561,468	VAN EIBERGEN SANTHAGENS, ROBERT ALEXAND
	<b>Examiner</b>	<b>Art Unit</b>
	JENNIFER SWINNEY	3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 12 November 2010.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-9, 13 and 14 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-9, 13, 14 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date . . .

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .  
5)  Notice of Informal Patent Application  
6)  Other: . . .

## DETAILED ACTION

1. The amendments filed 2 December 2010 have been entered. Claims 1-9, 13, and 14 remain pending in the application. Claims 10-12 have been cancelled.

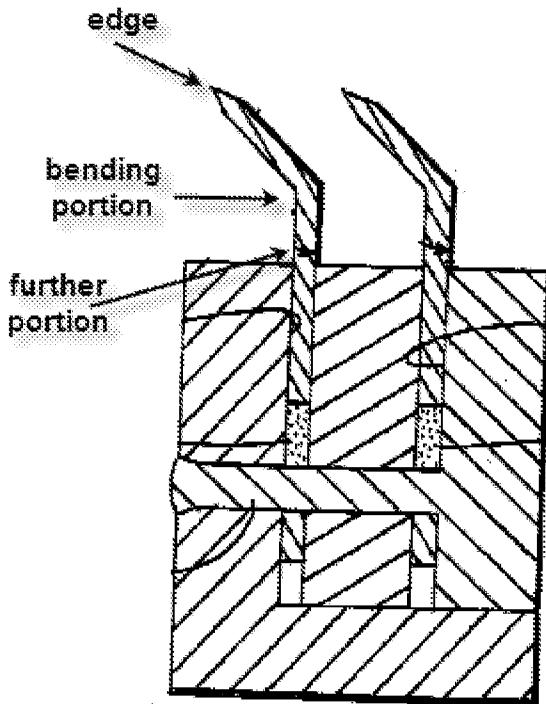
### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emmett (US 4,302,876; as cited in IDS) in view of US Patent No. 5,822,862 to Ciaffone and Clark (US 972,436; as previously cited).

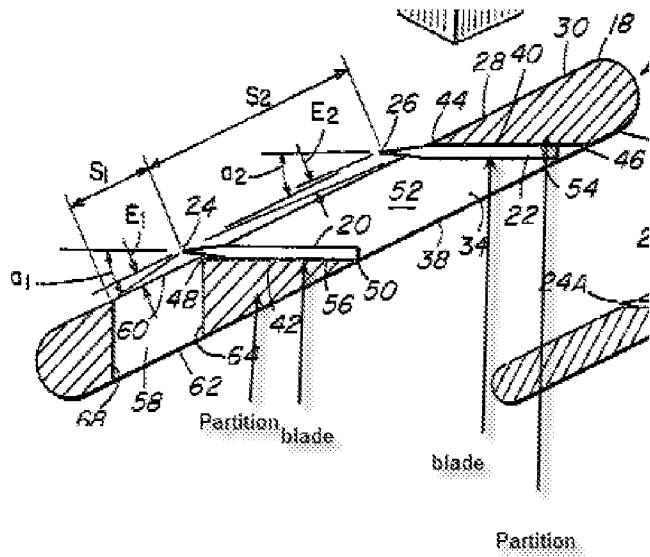
With respect to claim 1, Emmett discloses a razor head (it is old and well known in the art for a razor blades to be supported in a razor head) having one or more fixed bridge partitions (see figure 8) and at least one razor blade (302) attached to a corresponding fixed bridge partition of substantially equal length (see figure 8), each blade comprising an edge portion with a cutting edge (306), a bending portion (see figure 8, below) positioned between the edge and the further portions, where the edge portion is bent relative to the further portion (see figures 7 and 8) and the bending portion (see figure, below) is spaced from said cutting edge and the fixed bridge partition (see figure 8).



Emmett does not disclose a top side of a blade attached to a bridge partition of the razor head, and an a bottom side of the further portion being remote from a corresponding fixed bridge partition and spaced apart in its entirety from any other structure in a razor head, the blade wherein at least the edge portion has a material structure hardened by a first heat treatment and in that the bending portion has a locally reheated structure formed subsequent to the first heat treatment. Tempering or annealing steel blades to obtain certain levels of hardness are well known in all blade arts.

Ciaffone discloses a side of a top blade (Fig. 2, 20, 22) attached to a bridge partition (Fig. 2, 40, 42) of a razor head, and a bottom side (Fig. 2, 20, 22) of a further portion being remote from a corresponding bridge partition and spaced apart in its

entirety from any other structure (Fig. 2, see below, it has been interrupted by the Examiner notes, the side of the further portion is spaced apart in its entirety from any other structures). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to provide Emmett with a bridge partition as taught by Caiffone. The bridge partition of Caiffone utilizes less material, which reduces cost and provides a passageway for debris (hair) during a cutting process (Col. 3, lines 4-11, Caiffone). It would have been obvious because a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.



Clark discloses a method of producing a razor blade wherein the entire blade is first hardened and tempered (page 1 lines 86-87) to create a hard edge which can be shaped into a cutting edge (see page 2 lines 1-2). Then areas of the blade which are intended to be bent are locally annealed (reheated) to form softer material in order to

create a steel that is more flexible (see page 1 lines 95-99). Clark locally reheats the material (as opposed to reheating the entire blade) in order to preserve the hardness in the area of the cutting edge (see page 1 line 108 through page 2 line 2). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the technique of first heat treating the entire blade blank, and then subsequently locally annealing portions of the blade which are desired to be flexible as taught by the art of Clark to improve the blade of Emmett for the predictable result of having a hard cutting edge and a flexible central portion which can be easily bent into the angled blade as disclosed by Emmett.

With respect to claim 2, Emmet as modified by Ciaffone and Clark does not disclose specific dimensions for the blade, thus Emmett does not disclose the razor head wherein the bending portion is less than 1 mm away from the cutting edge. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the head of Emmett to have the bend be under 1 mm away from the cutting edge, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Examiner further notes that this is an issue of scale and intended use. The larger the head is as a whole, the larger the distance is.

With respect to claim 3, Emmett as modified by Ciaffone and Clark, discloses the razor head wherein the razor blade has a blade material thickness, the bending portion having a larger thickness than the blade material thickness at the further portion.

Emmett discloses that the blade is bent by "bending conventionally formed blades at some step in their manufacturing process" (column 6 lines 29-31). Through the laws of conservation of mass, a slight bulge will naturally occur during the bending process as a result of squeezing more material into a tighter place. This is why in the bending art, notching is well known to help facilitate bending as material is not needed to be displaced. Displacing the material during any sort of bend will cause a bulge and thus a larger thickness than the non bent area.

With respect to claim 4, Emmet as modified by Ciaffone and Clark, discloses the razor head wherein the razor head is at least two razor blades (see figure 8) mounted parallel to each other in a razor head, wherein the edge portion of at least one of said at least two razor blades is bent towards at least one neighboring one of said at least two razor blades and projects towards said at least one neighboring one of said at least two razor blades over a distance perpendicular to the further blade portion of said razor blade which is smaller than the spacing between the further portions of these at least two of said razor blades.

With respect to claim 5, Emmett as modified by Ciaffone and Clark discloses the razor head wherein the razor blade is at least two razor blades (see figure 8), wherein each of the two razor blades are attached to a different corresponding fixed bridge partition (Fig. 2, 40, 42, Ciaffone), wherein a spacing is present between the cutting edges of at least two of said razor blades. As noted above, Emmett does not specifically disclose any dimensions in regards to the blade setup. Thus Emmett does not disclose the blade assembly wherein the spacing between successive cutting edges is less than

1.2 mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the blade assembly of Emmett to have the successive edges spaced less than 1.2 mm apart, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

3. Claim 6 is rejected, as best understood, under 35 U.S.C. 103(a) as being unpatentable over Emmett in view of Ciaffone and Clark as applied to claim 1 above, and further in view of Saturday Night Live "Mach 14" (first aired 5-6-00; episode breakdown provided; hereafter SNL; as previously cited) or Pelizzola (US 1,920,711; as previously cited).

The modified apparatus of Emmett discloses the razor head wherein the razor head comprises at least two razor blades mounted to a different corresponding fixed bridge partition, parallel to each other in a razor head, wherein a spacing is present between the cutting edges. Emmett does not disclose the razor blade wherein the cartridge has at least four razor blades. Examiner notes that the use of one, two, three, four, and five blades on shaver head cartridges is well known in the art.

Episode 483 of NBC's Saturday Night Live aired a skit titled "Platinum Mach 14" which features a razor having 14 blades (see provided photo). Pelizzola discloses a razor head having five blades (1-5) in order to shave "more quickly and more regularly, since the hair is cut by the various cutting edges in succession" (column 1 lines 9-11). It would have been obvious to a person of ordinary skill in the art at the time the invention

was made to modify the razor head of Emmett to have at least four blades in view of the art of SNL or Pelizzola in order to improve the quality of the cutting experience.

4. Claims 7, 9, 13, and 14 are rejected, as best understood, under 35 U.S.C. 103(a) as being unpatentable over Nissen (US 3,489,589; as previously cited) in view of Emmett and Ciaffone and in further in view of Clark.

With respect to claims 7 and 14, Nissen discloses a method of manufacturing at least one razor blade from a corresponding razor blade blank for attachment to a at least one respective fixed bridge partition of a razor head, the method comprising acts of: forming, using a razor blade blank (Col. 3, lines 30-35), an edge portion (12) with a cutting edge and a, a further portion and hardening the formed razor blade blank by a heat treatment (10).

Nissen does not disclose reheating after hardening of the formed razor blade blank, a portion of the razor blade blank to facilitate being at a pending portion of the edge portion of the hardened razor blade blank relative to the further portion of the hardened razor blade blank , thereby forming a razor blade, and attaching a top side of the further portion is attached to the bridge partition of the razor head, a bottom side of a further portion being remote from a corresponding fixed bridge partition and spaced apart in its entirety from any other structure in a razor head, and spacing the bending portion from the corresponding fixed bridge partition.

Emmett discloses a razor blade (302) which is bent (having a bending portion) during the manufacturing process between the edge and the further portion, and

spacing a bending portion from a fixed bridge partition. The bending takes place during the manufacturing process (column 6 lines 29-31).

Ciaffone discloses a top side of a further portion attached to a corresponding fixed bridge partition (Fig. 2, 40, 42) of a razor head, while leaving a bottom side (Fig. 2) of a further portion being remote from a corresponding bridge partition and spaced apart in its entirety from any other structure (Fig. 2, see Pg. 4, above, it has been interrupted by the Examiner, the bottom side of the further portion is spaced apart from any other structures). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the method of Nissen to include a bending step in the manufacturing process in order to produce blades which are bent in view of the teachings of Emmett to allow the blades to be rinsed better when inserted into the cartridge. It would have also been obvious to provide a bridge partition between blade members Emmitt as disclosed by Ciaffone to provide additional structural support. Examiner notes that the modified apparatus of Nissen still does not disclose reheating the metal after it has already been hardened. The method of Clark discloses locally reheating an already hardened blade strip in order to soften the material to make it more flexible instead of brittle (lines 94- 99). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the process of Nissen to include a local reheating step in the area of the bend in order to prevent the blade from snapping. Examiner notes that the blade is too brittle to bend without reheating.

With respect to claim 9, the modified method of Nissen discloses the cutting edge being ground after hardening, but does not disclose the cutting edge being ground before bending. Examiner notes that cutting edges are typically ground after hardening in order to maintain the edge. Further, it is noted that there exists a finite number of positions for the bending of the blade stock to exist. There are four basic steps to the method: heat treating, grinding, bending after the preheating, and sectioning into individual blades. Thus, there are only four possible positions for the preheating and bending steps to take place. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to try bending the blade stock after the cutting edge has already been ground as a person with ordinary skill has good reason to pursue the known options within his or her technical grasp. The claim would have been obvious because "a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense."

With respect to claim 13, the modified method of Nissen, discloses the razor head wherein the razor blade has a blade material thickness, the bending portion having a larger thickness than the blade material thickness at the further portion. Emmett discloses that the blade is bent by "bending conventionally formed blades at some step in their manufacturing process" (column 6 lines 29-31). Through the laws of conservation of mass, a slight bulge will naturally occur during the bending process as a result of squeezing more material into a tighter place. This is why in the bending art, notching is well known to help facilitate bending as material is not needed to be

displaced. Displacing the material during any sort of bend will cause a bulge and thus a larger thickness than the non bent area.

5. Claim 8 is rejected, as best understood, under 35 U.S.C. 103(a) as being unpatentable over Nissen in view of Emmett and Ciaffone and further in view of Clark as applied to claim 7 above, and further in view of Creamer et al. (US 3,224,900; hereafter Creamer; as previously cited).

With respect to claim 8, the modified apparatus of Nissen does not disclose the local heating of the razor blade blank being carried out by use of a laser. Examiner notes that the use of a laser to heat small areas of metals is well known in the art. Also, lasers are used to melt metals for welding. Creamer discloses that it is well known to heat metals using a laser (column 3 paragraph 2). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the modified method of Nissen to use lasers to locally reheat the metal instead of heated wheels in view of the teachings of Creamer. The claim would have been obvious because a particular known technique was recognized as part of the ordinary capabilities of one skilled in the art.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-9, 13, and 14 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER SWINNEY whose telephone number is (571)

270-5843. The examiner can normally be reached on Monday-Friday, 8:00 am-5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Daniel Prone/  
Primary Examiner, Art Unit 3724

18 January 2011

/JS/